PARENTAL SOCIAL CLASS IN PSYCHIATRIC PATIENTS

BY
E. H. HARE, J. S. PRICE and E. SLATER

Reprinted from
THE BRITISH JOURNAL OF PSYCHIATRY
Vol. 121, No. 564, November 1972

Brit. J. Psychiat. (1972), 121, 515–524

Parental Social Class in Psychiatric Patients

By E. H. HARE, J. S. PRICE and E. SLATER

In the search for environmental causes of mental disorder, the epidemiologist looks for an association between the disorder and some environmental factor. The significance of such an association can only be determined by a comparison of the patient population with a control population. Ideally, the control population will be the general population from which the patients have been drawn, but because this often presents great technical difficulties an alternative is to compare one diagnostic group with another. Sound conclusions cannot, however, be drawn from such a comparison unless it is known how far the diagnostic groups differ for factors which influence, or are thought likely to influence, the association being studied. Such factors, of which age- and sex-distribution are the most obvious, will often include social and cultural status. Cultural status—at least in so far as this may be equated with religion and country of birth—can be allowed for by confining the comparison to patients of a particular religion and place of birth. As regards social status, it is the patient's background rather than his present condition which seems important; for on the one hand present social status will be varyingly influenced by the type and severity of disorder, and on the other hand a person's general social behaviour and attitude (in as far, at least, as these are associated with the sort of social factors which psychiatrists have commonly studied) are more likely to stem from the type of upbringing he had than from his recent experiences.

These considerations led us to study the social class of origin of patients in various diagnostic groups by an examination of the father's occupation as recorded on the patient's birth certificate. Our principal aim was to be able to control for this factor in diagnostic comparisons of marriage rate, fertility, sibling-size, and season of birth. But we took the opportunity to replicate some of the work of Turner and Wagenfeld (1967) and of Birtchnell (1971). Turner and Wagenfeld found *selection* (i.e. the failure of a patient ever to attain his expected social level) to be a more important factor than *drift* (a patient's fall from a higher to a lower level of occupation) as an explanation of why schizophrenic patients have a lower social class distribution than that of their fathers or of the general population. Birtchnell found that *year of birth* was an important determinant of social class distribution, not only of psychiatric patients as a whole but of their fathers and the general population as well.

Method

This study is based on the case histories of a randomized sample of patients attending the Bethlem-Maudsley Hospital, as in-patients or out-patients. To minimize cultural influences, we confined ourselves to patients of Protestant religion and (as far as possible) to those born in Great Britain. We planned to obtain data on parental social class for about 200 cases of neurosis and about 100 cases each of schizophrenia, manic-depressive psychosis, and personality disorder*, and to have the birth dates of these patients distributed in the same way for each diagnosis. To this end we took all patients, of either sex, who attended the hospital during the period 1952–1966 and who had been born in the census years 1911, 1921, and 1931. Where it was necessary to increase the number of cases, patients born in the year before, or the year after, these census years were included. For the examination of social class difference between the patients and their fathers, we expanded the series of neurotic and schizophrenic cases to include about 100 males each

* On the Eighth Review of the International Classification of Diseases and Injuries, the code numbers included in these diagnostic groups were: neurosis, 300; schizophrenia, 295, 297; manic-depressive psychosis, 296; personality disorder, 301.

and, in order to provide a more natural distribution by age, we took most of the added cases from patients born in the years 1938–1943.

The occupation of the father at the time of the patient's birth was then noted from the patient's birth certificate, and his social class assigned from the Registrar General's Classification of Occupations 1950 (Registrar General, 1951). Table I shows the numbers of cases, by diagnosis in which the father's social class was studied.

The numbers of not-knowns is high (25 per cent) and the reasons for this may be noted here. In 15 cases, the mother's occupation only was given (presumably indicating an illegitimate birth); in 33 cases, there were too many entries of persons with the same name to make a search for the birth certificate feasible; and in 18 cases where the certificate could not be traced the patient's name was foreign and suggested foreign birth. For the remaining patients, the inability to trace the birth certificate must be attributed either to their being born outside England (and therefore probably mostly in Scotland, Wales or Northern Ireland) or to the name or date of birth being given, recorded or copied wrongly. That transmission errors were relatively rare is suggested by the fact that differences between the case records and the birth certificare, for day of birth of the patient (which would not affect the tracing of the certificate) occurred in only 17 cases and was in most cases a difference of no more than 2 or 3 days, while a difference in the month (which would not affect tracing if the months were in the same quarter of the year) was detected only once.

For male patients with neurosis or schizophrenia, the occupational history was studied from the case records (supplemented in 30 cases by information from other hospitals). Social class was then determined by the Registrar General's Classification of Occupations 1950, at three stages in the patient's history: (a) for the highest level of occupation which the patient had attained before his first attendance at the hospital during the period 1952–1969, (b) for his occupation at the time of his first spell of care, (c) for his occupation at the time of his latest spell of care. Thirty-five per cent of the neurotic and 61 per cent of the schizophrenic patients had more than one spell of care at the hospital. The median period of years between the first and last spell of care was $3\frac{3}{4}$ years for neurosis, $3\frac{1}{4}$ years for schizophrenia.

Results

1. *Social class of fathers at patients' birth.* We first studied social class distribution of the fathers by the year of birth of the patients (Table II). There is a significantly higher proportion in social class V for the fathers of patients born round 1931 than for those born round 1911; and, taking social classes IV and V together, there is a significantly higher proportion in these classes for the 1931 patients than for those born round 1941.

To allow more easily for the effect of year of birth in comparing the four diagnostic groups, we excluded those patients with neurosis or schizophrenia who were born round 1941. The observed numbers of fathers by social class, and their expected numbers after correction for differences in year of birth, are shown in Table III. The 'expected' numbers are those which would be expected if the distributions by social class were the same in all the diagnostic groups.

TABLE I

Numbers of patients for whom father's occupation was obtained from patient's birth certificate, by diagnosis and year of birth. Sexes together

Diagnosis	Year of birth				Total	Certificate not traced
	1910–12	1920–22	1930–32	1938–44		
Neurosis	55	98	70	12	235	59
Schizophrenia	28	67	48	32	175	77
Manic depression ..	44	40	25	—	109	39
Personality disorder ..	13	39	53	—	105	37
Total	140	244	196	44	624	212

TABLE II

Social class of father by year of birth of patient (percentage distribution). Diagnoses and sexes together

Social class	Year of birth				Total	London		London Boroughs 1951†	
	1910–12	1920–22	1930–32	1938–44		1931*	1951†	Camberwell	Lambeth
I	4	4	6	—	4·5	3·5	4·0	2·2	2·2
II	14	11	13	12	12·4	13·9	13·0	11·3	11·4
III	59	54	49	70	54·4	54·0	54·2	56·8	57·7
IV	10	15	10	14	12·5	11·3	11·9	12·2	11·5
V	13	16	22	4	16·2	17·3	16·9	17·5	17·2
Total (= 100%)	140	244	196	44	624	100·0	100·0	100·0	100·0

* Greater London, males aged 20–65 (Registrar General, 1938).
† London Administrative County, occupied and retired males aged 15 and over (Registrar General, 1954).

TABLE III

Social class of father at patient's birth, by diagnosis. Observed and (in brackets) expected numbers for patients born 1910–32

Social class	Neurosis	Schizophrenia	Manic-depression	Personality disorder	Total
I	13 (10·7)	8 (6·9)	3 (5·2)	4 (5·1)	28
II	21 (28·8)	16 (18·4)	16 (14·0)	21 (13·5)	74
III	117 (119·0)	83 (76·3)	61 (58·2)	46 (56·0)	307
IV	27 (26·9)	17 (17·3)	17 (13·2)	11 (12·7)	72
V	45 (37·6)	19 (24·1)	12 (18·4)	23 (17·7)	99
Total	223	143	109	105	580

The expected numbers are based on the social class distribution of all cases adjusted for year of birth differences in the diagnostic groups. Taking S.C. I and II together, χ^2 values (3 d.f.) are: neurosis 1·74, schizophrenia 2·23, manic-depression 3·50, personality disorder 5·80. None of these values approaches significance.

There is no significant difference between the observed and expected numbers for any diagnosis, though for personality disorder the departure from expectation, with an under-representation in S.C. III, is noteworthy.

In the general population, social class distribution varies considerably with age (see Appendix). The mean age of the patients' fathers at the time of the patients' birth may be taken as about 33 years. From Table X it is apparent that the social class distribution of persons of such an age must be fairly close to that of all persons between the ages of 20 and 64. It seems reasonable, therefore, to compare the social class of the fathers with that of the general population. The census findings of 1931 would be the best for this comparison, but figures for the (former) Metropolitan Boroughs of Camberwell and Lambeth, from which the Bethlem-Maudsley Hospital draws the majority of its patients, were not given until 1951. However, the distribution of social class in London scarcely differed between 1951 and 1931, and so the borough figures for 1951 may be accepted as a basis for comparison with the patients' fathers. The fathers show an excess in S.C. I, which may possibly be the effect of selection, but otherwise their distribution is very similar to that of the Boroughs and indeed to London as a whole (Table II).

Table IV gives the social class distribution of fathers by sex of patient. For schizophrenia, the

TABLE IV

Social class of father by sex of patient, by diagnosis: percentage distribution

Social class	Neurosis		Schizophrenia		Manic-depression		Personality disorder		Total	
	M	F	M	F	M	F	M	F	M	F
I + II	16	13	18	9	19	16	23	25	20	15
III	55	52	63	55	50	59	47	39	53	53
IV + V	29	35	19	36	31	25	30	36	27	32
Total (= 100%) ..	118	117	128	47	36	73	69	36	351	273

difference between the sexes reaches the significance level, but for the other diagnoses and for the group as a whole there is no appreciable sex difference. The under-representation of social class III in personality disorder, compared with the other diagnoses, holds true for each sex.

2. *Social class of fathers, by age of father.* We studied change in the social class of patients' fathers by comparing their social class at the time of the patient's birth with that at the time of the patient's first attendance at the hospital. The comparison was confined to male patients with neurosis and schizophrenia. Distribution by year of birth was similar for these diagnoses (Table I), though the neurotic patients were somewhat older (median age 35 years, compared with 31 years for schizophrenia). Table V shows the changes in parental social class. Fathers had moved upward in social class in 12 cases of neurosis and in 14 of schizophrenia, but had moved downwards in only one case of neurosis compared with 15 of schizophrenia.

TABLE V

Difference between the social class of father at the time of the patient's birth and at the time of the patient's first attendance

Social class change at later date	Neurosis		Schizophrenia	
	No.	%	No.	%
None	51	79	63	69
Upwards ..	12	19	14	15
Downwards ..	1	2	15	16
Total	64	100	92	100

The downward movements are of interest. In the one neurotic case, the father was a naval officer (S.C. I) at the time of the patient's birth, but at the time of the patient's attendance 22 years later he was a landscape gardener (S.C. IV), an understandable change for a serving officer who retires on pension and takes up other employment. There was one similar instance among the 13 schizophrenic cases, but the remainder suggested either a variability in the general type of employment or, more commonly, some carelessness or diffuseness in the statement of the father's present occupation. The cases suggesting variability were a farmer (S.C. II) who became a 'retired supervisor in a tobacco company' (S.C. III), a master hairdresser (S.C. II) who became a tool grinding engineer (S.C. III), and a railway constable (S.C. III) who became a gardener (S.C. IV). Examples suggesting carelessness or vagueness were a timekeeper (S.C. III) who became a 'factory worker' (S.C. V), a master builder (S.C. II) who became a 'retired craftsman' (S.C. III), a master dairyman (S.C. II) who became a dairyman (S.C. III), a haulage carter (S.C. IV) who became a 'retired road worker' (S.C. V), and a boot-and-shoe clicker (S.C. III) who became an 'industrial worker, factory job' (S.C. V). Rises in the parental social class of schizophrenic patients might have been due to a similar type of distortion: thus, a general labourer (S.C. V) became a general dealer (S.C. II). There were no comparable instances among the neurotic cases.

3. *Social class of fathers and patients compared.* The relation between a patient's social class at the time of his first attendance and the social class of his father at the time of his birth are shown in Table VI for those cases where the information was available. The proportion of patients who were of higher social class than

TABLE VI

Social class difference between patient, at first attendance, and his father (at patient's birth)

Social class difference of patient	Neurosis		Schizophrenia	
	No.	%	No.	%
None	57	51	55	46
Higher, by one social class	23	21	23	19
by two or more	16	14	7	6
Lower, by one social class	7	7	16	14
by two or more	8	7	18	15
Total	111	100	119	100

χ^2 (2 d.f.) = 8·39 p<0·02.

their fathers is 35 per cent for neurosis and 25 per cent for schizophrenia; and of patients with lower class than their fathers 14 per cent for neurosis and 29 per cent for schizophrenia. The difference between the diagnoses is significant ($p < 0·02$).

We also examined the relation between parental social class at the patient's birth and the highest social class achieved by the patient before his first attendance (Table VII). This indicates the degree to which a patient is *selected* for a social class different from that of his father. Compared with their fathers, there was a rise in social class in 36 per cent of neurotic and in 30 per cent of schizophrenic patients; and a fall in 13 per cent and 23 per cent respectively. The difference between the diagnoses is not significant.

TABLE VII

Social class difference between patient, at highest occupational level before attendance, and his father (at patient's birth)

Social class difference of patient	Neurosis		Schizophrenia	
	No.	%	No.	%
None	56	51	57	47
Higher, by one class ..	23	21	25	21
by two or more	17	15	11	9
Lower, by one class ..	6	6	14	12
by two or more	8	7	13	11
Total	110	100	120	100

χ^2 (2 d.f.) = 3·99 N.S.

4. *Social class of patient by age.* The effect of age on a patient's social class may be illustrated by comparing the social class distribution of those patients under 30 years old with those 30 or over, at the time of first attendance (Table VIII). Among neurotics, age has little effect on the proportions in the upper two social classes but the proportion in social class III increased in the older group at the expense of the lower classes. The social class distribution of neurosis in these two age groups differs significantly ($p < 0·02$). The older group of schizophrenic patients show a decrease in the proportion in social class III, though the difference in distributions of the two age-groups is not significant. There is no significant difference in the social class distributions between neurosis and schizophrenia for patients aged under 30, but for those aged 30 or more the difference is highly significant ($p < 0·001$).

5. *Social class and duration in occupation.* Table IX shows there is a marked relation between a patient's social class (measured at the time of his first attendance) and the number of years he had been in his occupation then. This is true for both neurosis and schizophrenia; and comparing those in an occupation for less than 5 years with those 5 years or more, the difference in social class distribution is significant for neurosis ($p < 0·02$) but not for schizophrenia.

TABLE VIII

Social class of patients (at first attendance), by age: percentage distribution

Social class	Neurosis		Schizophrenia	
	Less than 30 years	30 and over	Less than 30 years	30 and over
I	7	9	7	11
II ..	15	14	9	15
III ..	48	67	58	40
IV ..	15	9	9	12
V ..	15	1	16	22
Total (= 100%)	46	77	57	73

Taking S.C. I and II, and IV and V together, χ^2 (2 d.f.) is: for neurosis, 8·23 ($p < 0·02$), for schizophrenia 4·43 (N.S.); for under 30's, 1·03 (N.S.), for 30 and over, 14·58 ($p < 0·001$).

TABLE IX

Social class of patients (at first attendance), by duration in occupation: percentage distribution

Social class	Neurosis			Schizophrenia		
	— 1 yr.	2–5 yrs.	5+ yrs.	— 1 yr.	2–5 yrs.	5+ yrs.
I + II	15	22	31	17	29	20
III	45	61	64	43	51	58
IV + V	31	18	5	40	20	12
Total (= 100%) ..	26	28	58	30	35	40

TABLE X

Effect of age on social class. Males, Greater London, 1931. Percentage distribution

Social class	Age								
	16–	20–	25–	35–	45–	55–	65–	70 and over	20–64
I	0·7	1·8	3·0	3·9	4·4	4·7	5·2	5·6	3·5
II	2·4	6·2	11·0	16·4	18·0	18·0	17·6	17·6	13·9
III	60·5	63·8	56·9	52·7	49·1	46·8	47·2	49·7	54·0
IV	11·2	11·1	11·9	11·2	11·0	11·1	10·4	11·0	11·3
V	25·2	17·1	17·3	15·9	17·5	19·4	19·5	16·0	17·3
Persons (000's) ..	257	359	638	510	458	334	101	112	2,300

We may conclude that the association between low social class and a short period of time in an occupation is not a peculiarity of schizophrenic patients.

6. *Social class of patients at different times.* The social class of each patient at the time of his first attendance was compared with the highest social class he achieved before then. Information for this comparison was available in 122 neurotic and 130 schizophrenic patients. Among the neurotics, the social class of four was less on their first attendance than at some time previously. For schizophrenics, this number was 11, and a further three schizophrenic patients had not worked for at least two years before their first attendance. If these latter three are counted as having fallen in social class, the difference between the diagnoses is significant.

The four neurotic cases who fell in social class before attendance probably did not do so because of their illness: one, who had been a driver and an electrician, became a chicken farmer (S.C. II) after a win on the football pools, but went bankrupt and then worked as a salesman (S.C. III) for three years before his first attendance; one had been an apprentice electrician (S.C. III) for four years but had not been considered of sufficient promise and had then become a gardener (S.C. IV); and the two others, who had both done S.C. IV occupations before doing national service, thereafter became lorry drivers (S.C. III), but had reverted to S.C. IV occupations for more than a year before their attendance. With the schizophrenic patients, on the other hand, all appear to have fallen in level of occupation because of the development of their illness.

For those patients with more than one attendance at the hospital, social class at the last attendance was compared with that at the first attendance.

Among 41 neurotic patients, only one fell in occupational level. This was a man of 22 who was a trainee architect (S.C. II) at the time of his first attendance, but who failed to pass his examination and who, at his last attendance seven years later, had been a clerk (S.C. III) for several years. Two neurotic patients rose in occupational level, one from a clerk (S.C. III) to a section-leader (S.C. II), and the other from a trencher (S.C. V) to a clerk.

Among 75 schizophrenic patients, five rose in occupational level but 12 fell and a further five had not worked for at least two years at the time of their last attendance. In all these 17 schizophrenic patients, their continued illness was clearly the cause of their occupational fall or unemployment.

Discussion

Broadly, our findings confirm those of Birtchnell (1971), that there is no significant variation in social class distribution among the parents of patients in different diagnostic groups. But whereas Birtchnell's fathers differed in social class distribution from that of his control population, ours were very similar to the appropriate census distribution. For schizophrenic patients (a group not specifically categorized in Birtchnell's study), our findings confirm those of Goldberg and Morrison (1963), Dunham (1964) and Grünfeld and Salvesen (1968), that the social class distribution of the fathers of these patients does not differ from that of the general population. Like Birtchnell, we find that the social class distribution of the fathers of our psychiatric patients varies with the year of birth of the patient, although from the practical point of view the effect does not seem a very marked one. Like Goldberg and Morrison, but unlike Turner and Wagenfeld (1967), we found drift to be a more important factor than selection in the lower social class distribution of schizophrenic patients compared with their fathers.

The principal weakness in the design of the present study is that the patients were not drawn from any defined catchment area and may have been subject to some selection for attendance at a teaching hospital. But the main effect of any such selection probably lies in admission for in-patient treatment, whereas our series was a randomized sample of all attendances. Moreover, as there is no reason to think selection would act more for one diagnostic group than another, the diagnostic comparisons may be taken as reasonably free from this source of bias. Again, a case series from one hospital is likely to have the merit of consistency in diagnostic criteria.

Determination of parental social class from a patient's birth certificate is cumbersome, and the proportion of certificates not traced in this study was high (25 per cent of those searched, the same proportion as in Goldberg and Morrison's study). But there was no reason to suppose any systematic bias in the failure to trace certificates, and the birth certificate method has the obvious advantage that the father's occupation is obtained at a time when the patients are all of the same age and is recorded impartially by a trained official from the father's own statement (though, even so, the record was not always adequate and we had to discard four cases where the occupations were given as army pensioner, insurance official, optician, and skilled labourer). Like Goldberg and Morrison, we found a high degree of consistency between the father's occupation as recorded on the birth certificate and as recorded at the time of the patient's first attendance. But our study strongly suggested that for schizophrenic patients the father's social class as given by the patient or a relative (commonly the patient's mother) might be misleadingly vague and lead to the assignment of a social class lower than the correct one. If this source of distortion is more than a purely local one, it could account for the finding of other workers that, compared with controls, parental social class is low in schizophrenic patients (Turner and Wagenfeld) and in psychotic patients (Birtchnell).

The relation between social class distribution and age is evidently complex. Two factors seem to be involved: secular and promotional. Parental social class varied with the year of birth of the patient, and in this respect our findings were very similar to those of Birtchnell. Birtchnell suggested that the need for skilled workers in an increasingly technological society will lead to an increase in the proportion of persons in social classs III at the expense of social class V. Comparison of the social class distributions in the censuses of 1931 and 1951 would support this for England and Wales as a whole, though not for London. It is possible that the economic depression of the early 1930's could be a factor in this secular variation. But an individual's social class may also vary with age, principally in that he will achieve promo-

tion. In the present study, 15 per cent to 20 per cent of fathers moved upwards between the time of the patient's birth and the time, some 30 years later, when the patient first attended the hospital. No comparable downward movement was seen in the fathers of neurotic patients, and the observed downward movement in the fathers of schizophrenics (16 per cent) seemed largely attributable to casualness in the reporting of their occupations at the later date. Among the patients themselves, age had a marked influence on the social class distribution in neurosis, with a significant increase in the older age group (Table VIII). This was not so for schizophrenia, doubtless because the continuance of the illness, often with increasing severity, reduced the chance of, or wish for, promotion, as well as increasing the likelihood of a fall in occupational level.

Comparison of the highest social class which a patient achieved before his illness with parental social class at the time of the patient's birth gives an index of *selection* of patients for lower social class. Our findings (Table VII) revealed no significant difference between neurosis and schizophrenia in this respect, although the schizophrenic patients showed less upwards and more downwards *mobility* (i.e. social class change compared with their fathers) than the neurotic patients, suggesting that selection may have played some part. At the time of the patient's first attendance, however, the schizophrenic patients showed a significantly greater downwards social mobility (Table VI) indicating the effect of drift. Downwards drift continued in schizophrenia, in that at the time of their last attendance (a median time of $3\frac{1}{4}$ years later) 12 of 75 schizophrenic patients had fallen further in social class compared with only one of 41 neurotics. In this respect our findings are similar to those of Grünfeld and Salvesen. The low drift and high selection found for schizophrenic patients by Turner and Wagenfeld might perhaps have been due in part to their taking parental social class at a time when the patient was 16 years old. Thus fathers were likely to have been considerably older than the patients and for that reason likely to have been of higher social class. Their finding might also in part stem from their very wide definition of schizophrenia, for in as far as they may have included cases of what Grünfeld and Salvesen diagnosed as reactive psychosis, such cases were found by these authors to show downward social mobility (i.e. selection) but not to show drift during the course of the illness.

The usefulness of the concept of social class, when this is determined solely by occupation, must depend to some extent on the period of time for which a person has been in his occupation or in an occupation of equivalent class. A fall in occupational level seems to occur more readily for social classes III and IV than from social classes I or II. The reason probably is that occupations of social class I and II require a longer period of training and experience before competence is acquired, so that they are associated with a greater resistance to change on the part both of the individual and of the administrative structure which supports him. We found a tendency for a patient in social class I or II who gradually became incapacitated by a developing schizophrenic illness first to be given long periods of sick leave and later to be kept on as a 'passenger' perhaps for many years; and when finally the decision was taken to dismiss him he was likely to remain unemployed on a pension rather than to find an occupation of lower status. Thus the change from one class to another probably does not occur with equal facility in all classes. This is reflected in our finding (Table VIII) that social class is correlated with duration in occupation, independently of diagnosis. From the study of the occupational histories, however, frequent change in occupational grade seemed to be associated more often with schizophrenia than with neurosis. The more a person's occupational grade fluctuates, the more difficult it becomes to assign him satisfactorily to a social class. Thus a schizophrenic patient did unskilled factory work (S.C. V) until the age of 23, when he became a capstan operator (S.C. III). He was dismissed after six months in this occupation, and became a bench-hand again for two months; he was then again a capstan operator for eight months, was dismissed again and at the time of his first admission he had once again been a bench-hand for two months. Another patient with paranoid schizophrenia

had been an actor and dancer (S.C. III) for eight years, though in intervals between engagements had worked as a porter (S.C. IV). At the time of his first attendance at hospital he had been a porter for six months. Turner and Wagenfeld found than in 11 per cent of 207 schizophrenic patients there had been both upward and downward movement in the prestige level of occupation during the 10 years preceding interview. The proportion in our series was somewhat less (6 per cent). Whether in such cases the patient's occupation at the time of his hospital attendance is likely to be in the higher or in the lower class of such a range is uncertain.

Summary

1. For a randomized sample of 624 patients attending (as out-patient or in-patient) a hospital, the social class of their fathers was determined from the patients' birth certificates. There was a significant variation in social class distribution by year of birth of the patients. An analysis of parental social class was made for four diagnostic groups—neurosis, schizophrenia, manic-depression, and personality disorder—after correcting for diagnostic differences in year of birth. In none of the diagnostic groups was the parental social class distribution different from that of the sample as a whole. The parental social class distributions were very similar to those of the appropriate census figures. For the group as a whole the social class distribution of fathers was not influenced by the sex of the patient.

2. Age affected the social class distribution both of fathers and of patients. For the neurotic cases, the effect on both fathers and patients was a general upward movement in social class with increasing age. For the fathers of schizophrenic patients there was downward as well as upward movement; the downward movement appeared to be largely due to vague or inadequate recording of the father's occupation at the time of the patient's attendance at hospital.

Attention is drawn to the fact that social class distribution in the general population varies considerably with age.

3. When the highest social class level achieved by a patient before his illness was compared with that of his father at the time of the patient's birth, no significant difference was found between schizophrenia and neurosis. But at the time of the patient's first hospital attendance a significant proportion of schizophrenic patients compared with neurotics were in a lower social class than their fathers. A further fall in social class had occurred among schizophrenic patients at the time of their last attendance. These findings are taken to indicate that selection played a relatively small part, and drift a relatively large part, in the low social class distribution of schizophrenic patients compared with their fathers.

APPENDIX

Age and social class in the general population. The Registrar General's *Decennial Report for England and Wales 1931* (Registrar General, 1938) gives figures for the social class of males by age and geographical region. Table X shows the percentage distribution for Greater London, calculated from these figures. The proportions in social class I and II increase steadily up to retiring age, while the proportion in social class III decreases steadily. The increase in social class I and II with age may reasonably be attributed to the effect of promotion, i.e. to the effect of increasing skill, experience or seniority. Promotion may also account for the decrease in the proportion of persons in social class V between the ages of 16 and 44. After the age of 44, however, the proportion in social class V *increases* rapidly. The most plausible explanation of this increase would seem to be the effect of (1) a decrease in skill, at least in competition with younger men, and (2) physical illness. Very similar changes in social class with age occur in the population of England and Wales as a whole for 1931 and for 1951 (Registrar General 1938, 1954).

The effect of age on the social class distribution of the general population more closely resembles that found here for schizophrenia than for neurosis (Table VIII). The comparison is somewhat untrustworthy in that the numbers of patients are small and the London boroughs from which the patients were largely drawn are not representative of the population of Greater London. But it may also be surmised that our older neurotic patients were a group selected for good physical health, in the sense that when an older person develops neurotic symptoms he is probably less likely to be referred to a psychiatrist if his physical health is poor than if it is good. If this were so, then older neurotic patients

might not be expected to show the increase in social class IV and V which is shown by the general population.

ACKNOWLEDGEMENTS

We thank Dr. G. B. Hill and Mr. I. C. J. Corkindale, of the General Register Office, for their help in tracing the birth certificates of our patients. The expenses of the investigation were defrayed by the Medical Research Council.

REFERENCES

BIRTCHNELL, J. (1971). 'Social class, parental social class, and social mobility in psychiatric patients and general population controls.' *Psychological Medicine*, **1**, 209–21.

CENSUS 1951, ENGLAND AND WALES, COUNTY REPORT LONDON (1953). Table 27, p. 90. London: H.M.S.O.

DUNHAM, H. W. (1964). 'Social class and schizophrenia.' *American Journal of Orthopsychiatry*, **34**, 634–42.

GOLDBERG, E. M., and MORRISON, S. L. (1963). 'Schizophrenia and social class.' *British Journal of Psychiatry*, **109**, 785–802.

GRÜNFELD, B., and SALVESEN, C. (1968). 'Functional psychoses and social status.' *British Journal of Psychiatry*, **114**, 733–8.

REGISTRAR GENERAL (1938). *Decennial Supplement England and Wales* **1931**. Part II(a), p. 361. London: H.M.S.O.

—— (1951). *Classification of Occupations and Industries* **1950**. London: H.M.S.O.

—— (1954). *Decennial Supplement England and Wales* **1951**. *Occupational Mortality, Part I*. Table 1A, p. 36. London: H.M.S.O.

TURNER, R. J., and WAGENFELD, M. O. (1967). 'Occupational mobility and schizophrenia: an assessment of the social causation and social selection hypotheses.' *American Sociological Review*, **32**, 104–13.

A synopsis of this paper was published in the May 1972 *Journal*.

Edward H. Hare, M.A., M.D., F.R.C.Psych., *Bethlem Royal and the Maudsley Hospitals, Denmark Hill, London, S.E.5*

John S. Price, D.M., M.R.C.Psych., *Department of Psychological Medicine, University of Newcastle upon Tyne*

Eliot Slater, C.B.E., M.D., F.R.C.Psych., *Institute of Psychiatry, London, S.E.5*

(*Received 14 January 1972*)